

REMARKS

Thorough examination and careful review of the application by the Examiner is noted and appreciated.

Claims 1-2 and 4-20 are pending in the application.
Claims 1-2 and 4-20 stand rejected.

Objections to the Drawings

A set of corrected drawings which have been approved by the Examiner is hereby submitted.

Claim Rejections Under 35 USC §112

Claims 1-2, 4-7 and 14-20 are rejected under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

The Examiner's statement that "the claimed language of 'said strain sensor is sensitive to at least 1 micrometer strain' (claims 1 and 14) is not clearly understood", is well taken. The Applicants apologize for using the misnomer of "strain" and agree with the Examiner that there should be no unit for strain.

Instead, the correct terminology to use in the claim should be "displacement". In other words, the claim language should read "said strain sensor is sensitive to at least 1 μm displacement". Claims 1 and 14 have been amended accordingly to alleviate the Examiner's rejections.

Claim Rejections Under 35 USC §103

Claims 1-2 and 4-20 are rejected under 35 USC §103(a) as being unpatentable over Park et al (Pat. Publ.) in view of Wakabayashi et al '421 or further in view of Akiyama et al (Pat. Publ). It is contended that Park et al discloses substantially the present invention except the thickness of the strain sensor being 1 μm , and further more such is disclosed by Wakabayashi et al or Akiyama et al in the thickness of a piezoelectric layer of being less than 1 μm .

The rejections of claims 1-2 and 4-20 under 35 USC §103(a) based on Park et al, Wakabayashi et al and Akiyama et al is respectfully traversed.

Independent claims 1 and 14 have been amended to more accurately define the invention claimed therein by stating:

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"... said strain sensor is sensitive to at least 1 μ m displacement" (Claim 1)

and,

"... said strain sensor is sensitive to at least 1 μ m displacement". (Claim 14)

The Applicants respectfully submit that such limitations are not taught or disclosed by Park et al, Wakabayashi et al and Akiyama et al, either singularly or in combination thereof.

Moreover, the criticality of using a strain sensor that has sensitivity to at least 1 μ m strain is presented in the specification at Page 13, Paragraph 0036:

"The strain sensor should be sensitive to very small displacement, such as displacement as small as 1 μ m. One of such suitable strain sensors to be utilized by the present invention wafer blade may be a piezoelectric thin film sensor."

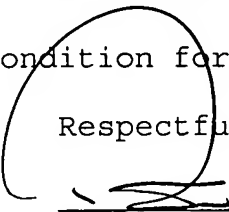
Furthermore, at Page 14, Paragraph 0037:

"For instance, in the present invention application of a piezoelectric element or a piezoelectric thin film sensor on a bottom surface of a wafer blade **any minute contact with a wafer can be detected** and an alarm can be sent to an alarm panel located in a central process controller."

The rejection of claims 1-2 and 4-20 under 35 USC §103(a) based on Park et al, Wakabayashi et al and Akiyama et al is respectfully traversed. A reconsideration for allowance of these Claims is respectfully requested of the Examiner.

Based on the foregoing, the Applicants respectfully submit that all pending claims, i.e., claims 1-2 and 4-20, are now in condition for allowance. Such favorable action by the Examiner at an early date is respectfully solicited. In the event that the present invention is not in a condition for allowance for any other reasons, the Examiner is respectfully invited to call the Applicants' representative at his Bloomfield Hills, Michigan office at (248) 540-4040 such that necessary action may be taken to place the application in a condition for allowance.

Respectfully submitted,



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